Ted Shapiro, Geology 120 Lab, Sedentary Report.

Section 1, What Defines A Sedimentary Rock.

- ***Sedimentary rock is rock that forms at or near the surface in one of several different ways: by the cementing together of loose clasts (fragments or grains) that had been produced by physical or chemical weathering of pre-existing rock, by the growth of shell masses or by the cementing together of shells and shell fragments, by the accumulation of and subsequent alteration of organic matter derived from living organisms, or by the precipitation of minerals directly from surface-water solutions.*** These processes form the 4 major types of sedimentary rocks, ***Clastic Sedimentary Rocks, Chemical Sedimentary Rocks, Biochemical Sedimentary Rocks, and Organic Sedimentary Rocks.***
- ***Clastic sedimentary rocks*** form when pre-existing rock is broken down by physical weathering, which is mechanical weathering that is typically caused by frost heaving or tree roots. Frost heaving happens when liquid water accumulates in a crack or opening in a rock and freezes; when the water freezes, it expands and fractures the rock. Tree roots grow into cracks in a rock and force the rock apart. The mechanical action of wind and water can break the rock fragments down further. Wind and water also transport the fragments and then they settle out.

Chemical weathering happens when the minerals that compose a pre-existing rock are dissolved and decomposed by a solvent, such as water, and

Under the microscope, on a thin slide, the sandstone appeared as small sub-rounded grains stuck together, but with space between them. The limestone particles on the thin slide appeared more rectangular, but they still appeared to have space between them.